# M6 fiber optic sensor



## Overview

m6 Fibre Optic Sensors | Farnell GermanyBuy Fibre Optic Sensors. Farnell Germany offers fast quotes, same day dispatch, fast delivery, wide inventory, data.

## Key Takeaways

An M6 fiber optic sensor is a compact, threaded optical sensor used for precise, non-contact detection in industrial automation, often employing diffuse reflection to detect objects. OverviewM6 fiber optic sensors are threaded sensors with an M6 mounting size, designed for compact installation in automated systems. They use optical fibers to transmit light signals and detect objects based on the reflection of light from the target surface.

These sensors are widely used in quality control, automated assembly, and inspection systems where direct access is limited or high precision is required.

### Types and Features

Diffuse Reflective Sensors: These sensors detect objects by measuring the diffuse reflection of light from the target surface. Light emitted from the sensor is reflected back to the receiver, allowing detection of presence, position, or color characteristics. Material and Construction: Commonly, the fiber core is made of glass, with a stainless steel (SUS) or nickel-plated brass sheath for durability.

Plastic versions with polyethylene jackets are also available for flexible applications. Sensing Distance: Depending on the model, M6 sensors can detect objects from 50 mm up to 630 mm, with some heat-resistant models operating in -60°C to 350°C environments. Cable Length and Flexibility: Standard cable lengths range from 1 m to 2 m, with flexible fiber optic cables allowing versatile installation layouts.

*© 2026 PROMETHEAS OPTICAL - All rights reserved*

Threaded Mounting: The M6 threading allows easy integration into machinery and supports compact, secure mounting in tight spaces.

### Applications

Automated Inspection: Detecting small parts, verifying assembly, or checking surface characteristics. Object Detection: Monitoring presence or absence of components on production lines. Harsh Environments: Heat-resistant models can operate in extreme temperatures, making them suitable for industrial ovens or high-temperature processes.

Flexible Layouts: Fiber optic cables allow sensors to be positioned in hard-to-reach areas without compromising detection accuracy. Installation and AccessoriesM6 fiber optic sensors are easy to install due to their threaded design. Some models may require convex tubes of varying lengths (10/20/40/90 mm) to optimize detection range and focus.

Accessories such as mounting brackets, fiber extensions, and protective sleeves are available to enhance performance and durability. Example Modelsifm E20511: A diffuse reflection sensor with M6 threading, suitable for industrial automation. Omron E32-D61-S 2M: Heat-resistant M6 sensor with a 630 mm sensing distance and 2 m cable length.

### Automation

Direct CF-CB1-20: Plastic M6 fiber optic sensor with 50 mm sensing distance and 2 m cable. M6 fiber optic sensors provide high precision, flexibility, and durability, making them ideal for industrial automation, inspection, and object detection applications.

## Article Content

m6 Fibre Optic Sensors | Farnell Germany

Buy Fibre Optic Sensors. Farnell Germany offers fast quotes, same day dispatch, fast delivery, wide inventory, datasheets & technical support.

Diffuse Reflective Fiber Optical Sensor, M3/M4/M6

Upgrade your automated inspection system with a high-precision diffuse reflective fiber optic sensor! This fiber optic transducer supports a wide range of thread sizes, including M3, M4, and M6, to meet

What is a Fiber Optic Sensor?

A fiber optic sensor operates with an optical fiber cable connected to a dedicated light source. These sensors offer great mounting flexibility and can be used is in a variety of environments.

*© 2026 PROMETHEAS OPTICAL - All rights reserved*

Through Beam Fiber Optic Sensor, M3/M4/M6

This through beam fiber optic sensor has high performance and professional design, thread size M3, M4, M6 optional, fiber length 1M and 2M to adapt to a variety of

M6 Fiber Optic Diffuse Reflection Sensor for Temperature Monitoring

Unveiling the remarkable M6 Optical Fiber Sensor 125, masterfully engineered for temperature diffuse reflection with the FFGR-620 model. This extraordinary sensor epitomizes state-of-the-art

Fiber-optic sensor

A fiber-optic sensor is a sensor that uses optical fiber either as the sensing element ("intrinsic sensors"), or as a means of relaying signals from a remote sensor to the electronics that process the signals

Through-beam Fiber Optic Sensor

This Through-Beam Fiber Optic Sensor offers exceptional performance and versatile design, making it an ideal choice for industrial detection applications. Available in three sizes—M3, M4, and M6—it

Fiber optic sensors and fiber optics | Baumer USA

Fiber optic sensors and fiber optics - limitless and customized The perfect solution with the fiber optics sensor toolbox Over 350 customized fiber optic solutions

Fiber Optic Sensor & Amplifier | ATO

ATO store offers high-temperature fiber optic sensors for sale that provide the highest level of accuracy and reliability! Available in M3/M4/M6 diffuse fiber optic

Fiber Optic Sensor Cable

This fiber optic sensor cable is a 2 meter, diffuse reflection, M6, right-angle, R2 jacket IOT proximity sensor. The 2-meter diffuse reflection cable is durable and easy to mount. Contact L-Com''s expert

Optical Fiber Sensor, 1m Length Light Sense Diffuse Reflective

Optical Fiber Sensor, 1m Length Light Sense Diffuse Reflective Digital Fiber Optic M6 Probe Sensor Cable Line with Gasket Nut for Measuring Optical Signal : Amazon : Industrial & Scientific □High

Fiber Optic Sensor, FR-610-I Diffuse Reflective Digital Fiber M6 Probe ...

Fiber Optic Sensor, FR-610-I Diffuse Reflective Digital Fiber M6 Probe Sensor Cable Line : Amazon : Industrial & Scientific The fiber optic sensor is a type of sensor that converts the state of the

© 2026 PROMETHEAS OPTICAL - All rights reserved

Optical Fiber: plastic, M6 head, 160mm range (PN# OPT2056 ...

OPT2056 Wenglor optical fiber, plastic, cuttable, diffuse, parallel fibers, M6 head, stainless steel, flexible, polyethylene jacket, 160mm sensing distance, 2m length.

Plastic Fiber Optic Sensor, M6 Bend Probe

The M6 bend plastic fiber optic sensor is a diffuse reflection type sensor ideal for precise detection in industrial automation settings. Its robust plastic build, high

connector+M6 Fiber Optic Sensors | Newark Electronics

Buy Fiber Optic Sensors. Newark Electronics offers fast quotes, same day dispatch, fast delivery, wide inventory, datasheets & technical support.

E32 Standard cylindrical | OMRON, Europe

The standard cylindrical fiber optic sensing heads provide reliable object detection, easy installation and long sensor lifetime for all general applications. High-flex

Related Video Reference

This video was associated with the source search result. Verify technical details against current product documentation and project requirements.

## Contact Us

Continue your research online:

Website: https://prometheas.fr
Technical inquiry: https://prometheas.fr/project-desk.html
North American project region: Ashburn, Loudoun County, Virginia, United States

This document is for preliminary research. Verify specifications against current standards, product documentation and project requirements.

*© 2026 PROMETHEAS OPTICAL - All rights reserved*